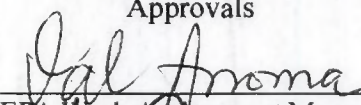
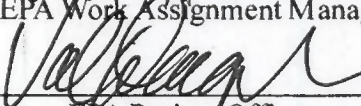


Approvals	
 EPA Work Assignment Manager	04/27/2011 Date
 EPA Project Officer	5/2/11 Date

WORK PLAN

Economic Impact Analyses to Support Technical and Regulatory Rulemaking Efforts for Revisions to NESHAPs Subpart W, the National Emissions Standards for Radon Emissions from Operating Mill Tailings (40 CFR 61.250) and the Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings (40 CFR Part 192)

Prepared by:

S. Cohen & Associates
 1608 Spring Hill Road, Suite 400
 Vienna, VA 22182-2241

under

Contract Number EP-D-10-042
 Work Assignment No. 2-04

Prepared for:

U.S. Environmental Protection Agency
 Office of Radiation and Indoor Air
 1200 Pennsylvania Avenue, N.W.
 Washington, DC 20460

Valentine Anoma, Work Assignment Manager

April 6, 2011

This Work Plan includes business confidential data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed - in whole or in part - for any purpose other than to evaluate the proposed approach and cost. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to the restriction is contained in all pages.

1. BACKGROUND AND OBJECTIVES

The purpose of this Work Plan is to describe SC&A's approach to meet the requirements of Work Assignment 2-04 under EPA contract EP-D-10-042. Under this Work Assignment, SC&A will provide technical and regulatory support to the EPA Office of Radiation and Indoor Air (ORIA) by developing two draft Economic Impact Analysis documents supporting a potential separate rulemaking to update the NESHAPs Subpart W standard for radon emissions from operating uranium mill tailings impoundments (40 CFR 61.250) and the Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings (40 CFR 192).

Subpart W includes two separate standards. First, existing sources must ensure emissions from tailings impoundments not exceed 20 pCi/m²-sec of radon-222. Second, new sources must comply with the requirements for constructing one of two types of impoundment structures. Subpart W requires that existing sources file an annual report of the facilities' emissions. These sites include the mills regulated by the U.S. Nuclear Regulatory Commission (NRC) and its Agreement States.

Section 112(q) of the Clean Air Act, as amended (CAAA), further requires EPA to review, and if appropriate, revise or update the Subpart W standard on a timely basis (10-year interval). To date, EPA has not revisited this standard since its promulgation and now desires to do so. The purpose of this work assignment is to provide support for the development of an Economic Impact Analysis Document to support EPA's rulemaking effort to determine if modification of Subpart W is warranted. Outlines of an EIA document as part of a combined BID/EIA document were previously prepared by SC&A under Work Assignment 1-09, of EPA contract EP-D-10-042. EPA approved the outline and on March 25, 2011, SC&A submitted an initial draft of the BID/EIA document which contained a preliminary consideration of economic impacts associated with the review of Subpart W.

The regulatory standards of 40 CFR Part 192 that are currently in effect were originally issued in 1983, under the Uranium Mill Tailings Radiation Control Act (UMTRCA), and last revised in 1995. These regulations establish standards for protection of the public health, safety, and environment from radiological and non-radiological hazards associated with uranium and thorium ore processing and their associated wastes. The cross-media standards apply to pollution emissions and site restoration. The U.S. Nuclear Regulatory Commission (NRC) and their Agreement States use these standards in their oversight of uranium and thorium facility operations and in issuing licenses for source material. The U.S. Department of Energy (DOE) uses them in their management of closed uranium mills and in the cleanup of contaminated soil and buildings.

EPA is reviewing all the uranium-related standards in the existing regulations, and potentially revising them to take into account:

- Changes in uranium industry technologies (such as utilization of the In Situ Leaching recovery process as the principal current technology for extracting uranium) and their potential environmental impacts
- Revisions in EPA drinking and groundwater protection standards

WAM will meet with SC&A to discuss this requirement after the WAM completes his coordination with OSWER.

- SC&A will review current economic models being used in regulatory impact analysis and provide recommendations on the impact of the applicability of the models on the current rule revision considerations.
- What are the ranges of equipment and labor costs, tax framework, lease and rental expenses, discount rates, capital costs, borrowing, insurance, and bonding expenses if appropriate?
- What are the anticipated industries' costs versus environmental and public health benefits to be derived from each proposed revised standard?
- SC&A will collect information relating to economic impacts to disadvantaged populations, Tribal populations, children's health, and environmental justice.
- SC&A will review the original economic assessment materials and any supporting documents for prior reviews of both 40 CFR 61.250 and 40 CFR 192, which will be provided by the WAM within 30 days of approval of the Work Plan.

2.3 Task 2A - Prepare drafts of the final document for an Economic Impact Analysis (EIA) that supports the proposed rulemaking decision for NESHAP Subpart W

The EIA will present the information and analyses such that an interested member of the general public could clearly understand the attributes of the technical aspects of the standard. The goal being that the EIA will clearly detail the economic impacts associated with any proposed revision to the standard. Topics to be addressed in the EIA will include, at a minimum:

- The characterization of the problem being addressed
- Data and scientific analyses required to produce an economic impact decision
- Historical background of prior economic assessments
- Analysis of current economic models and data sources different from those used in the current rule

SC&A submitted an initial draft of the combined BID/EIA document on March 25, 2011, under Work Assignment 1-09. The EIA portion of the combined report was an initial draft and requires additional substantial research and effort. SC&A plans to submit an updated and complete version of the EIA for Subpart W within 30 days of approval of this Work Plan. EPA will provide any comments or instructions necessary to complete the EIA within 14 days of receipt. SC&A will respond to all comments and instructions for changes to the EIA within 7 days of receipt. This approach is being used to expedite the completion of the BID/EIA document by August 1, 2011.

Any future changes on decisions or schedules relating to the completion of the final draft of the EIA for 40 CFR 61.250 will be finalized by Technical Direction.

Program. He also coordinated and served as the EPA representative to the Conference of Radiation Protection Program Director and the interagency activities of the Committee on Radiation Protection and Public Health. At the U.S. Nuclear Regulatory Commission (NRC), Dr. Pettengill directed federal activities required under UMTRCA. Included in his responsibilities were the management and direction of uranium recovery programs.

Mr. David Goldin is the Senior Technical Advisor for this Work Assignment. He has previously managed projects assisting EPA in the development and implementation of radionuclide NESHAPs and its reconsideration of the NESHAPs for NRC-licensed facilities, phosphogypsum stacks and uranium mill tailings disposal sites. He holds a B.A. in Economics and has also participated in a regulatory-impact assessment of proposed revisions of 10 CFR 50 Appendix J on leak-rate testing requirements at power reactors, and performed an evaluation of decommissioning costs for DOE-owned nuclear facilities.

Dr. Les Skoski is a Technical Advisor and has more than 30 years of experience in the management and execution of radioactive, hazardous and mixed waste-related programs for government and commercial clients. He has managed multidisciplinary teams in site and remedial investigations, feasibility studies, remedial actions, environmental impact statements and property transfer assessments, with a primary focus on sites with naturally occurring radioactive materials (NORM). These include primary uranium producers here and abroad, secondary uranium/thorium metal and non-metal miners and millers (e.g., phosphates), and NORM-contaminated Superfund, FUSRAP and SDMP sites. He will provide technical input to activities under Tasks 2A and 2B.

Mr. Gary Konwinski is a Technical Advisor and has more than 35 years of relevant experience, including 11 years as a senior license reviewer and senior environmental and safety inspector for the NRC. He was responsible for reviewing license renewals and terminations for a variety of uranium recovery facilities. Mr. Konwinski is an expert in all aspects of hydrology, operational systems, and decommissioning. He was the senior lead on the review of environmental monitoring and all effluent control systems and technologies proposed for use in uranium recovery facilities. He will provide technical input to activities under Task 2A and 2B.

Mr. Steve Marschke is a Technical Advisor and has over 35 years of relevant experience in nuclear engineering and radiological assessment. He has worked on several related EPA projects including risk assessments on uranium recovery at phosphate recovery plants, and risk analyses for 40 CFR 192, 40 CFR 190 and 40 CFR 61.250. He will provide technical expertise related to Tasks 2A and 2B.

Ms. Deborah Schneider is the lead technical writer and reviewer for this Work Assignment. Ms. Schneider has more than 16 years of experience supporting radiological environmental health and communications projects, particularly for ORIA. This support ranges from researching issues, to technical writing and editing, to managing projects.

A breakdown of the proposed hours per task in accordance with the Work Assignment dated August 24, 2010 is presented in Table 1.

- Submittal of final 40 CFR 192 needs report – To occur within 30 days of the meeting with the WAM. The WAM has 14 days to comment and SC&A has 7 days to respond to the WAM's final comments. All schedule changes are by Technical Direction.

The monthly reports on the status of all tasks will be submitted by the 15th of each month. We will include an updated project schedule (if required) and detailed cost accounting, as well as a discussion of work activities and technical problems encountered during the Work Assignment period of performance and recommended mitigation. Additionally, the monthly report will provide a discussion of activities to be completed during the next month. The schedule given above could change, depending on the time required by EPA to review and comment on the various documents.

7. CONFLICT OF INTEREST

To the best of our knowledge, no facts exist relevant to any past, present, or currently planned interest or activity (financial, contractual, personal, organizational or otherwise), which relate to the proposed work, and suggest that SC&A has a possible conflict of interest with respect to (1) being able to render impartial, technically sound, and objective assistance or advice, or (2) being given an unfair competitive advantage. Should this situation change, appropriate steps will be taken as prescribed by the contract, and the EPA WAM and Project Officer will be notified.

8. MANAGEMENT APPROACH

The SC&A Project Manager and Task Manager will exercise appropriate control over the assigned tasks to ensure that no work is performed past the specified completion date of March 26, 2012. In addition, the management team will advise the EPA Contracting Officer, the Project Officer and the WAM as soon as it is known if any aspect or requirement of the Work Assignment cannot be met.

SC&A will follow the approved Work Plan for the duration of the Work Assignment. SC&A will use its best efforts not to exceed the total level of effort (labor hours) specified in the approved Work Assignment, or the total estimated cost presented in the amended Work Plan. SC&A will submit a revised Work Plan to the EPA Contracting Officer, the Project Officer and the WAM for approval, as necessary, whenever SC&A becomes aware that the total level of effort or total estimated cost will be exceeded.

Contract No. EPD10042
CRAE1/204; Work Assignment 2-04
Rev. 1 to Cost Estimate, April 8, 2011

Direct Labor

Name	P-level	Task 1		Task 2		Total	
		Hours	\$	Hours	\$	Hours	\$
A. Zeitoun	4	4		48		52	
S. Marschke	4	0		84		84	
D. Schneider	4	2		16		18	
Employee P-4		6	419	148	9,954	154	10,373
L. Skoski	4	0		112		112	
Employee 2 P-4	4	0		0		0	
Employee 2 P-4		0	0	112	8,175	112	8,175
H. Pettengill	4	20		120		140	
D. Goldin	4	0		216		216	
G. Konwinski	4	0		96		96	
Associate P-4		20	2,300	432	39,720	452	42,020
L. Loomis	3	2		16		18	
Employee P-3	3	0		0		0	
Employee P-3		2	92	16	735	18	827
Clerical		2		48		50	
Employee Clerical		2	61	48	1,461	50	1,522
Subtotal		28	2,872	708	60,045	736	62,917
Fringe1 (FR) on Empl 1 Labor @	45.59%		261		5,539		5,800
Fringe2 (FR) on Empl.2 Labor @	17.50%		0		1,431		1,431
OH on Empl. Labor + FR @	25.65%		213		7,001		7,214
Other Direct Costs (ODCs)							
Subcontract - None		0	0	0	0	0	0
Estimated Travel			0		0		0
Misc. ODCs (see attached detail)			19		92		111
Total ODCs		0	19	0	92	0	111
Subcontractor Handling @	4.01%		0		0		0
G & A Expense @ (app. to Total Labor + FR + OH + Non-Subcontract ODCs + Sub. Handling)	13.59%		459		10,071		10,530
Total Costs before Fee			3,824		84,179		88,003
Fixed Fee @	\$6.16 /hour		172		4,361		4,533
GRAND TOTAL		28	3,996	708	88,540	736	92,536

Avg. \$/hr: \$125.73

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Detail for ODC Estimates

Task 1:

Reproduction:	50 copies @	\$0.04 each	2
Telephone/Fax:	1 hours @	\$7.20 /hour	7
Postage/Delivery:	1 Fed-Ex @	\$10.00 (est.)	10
Total ODCs			19

Task 2:

Reproduction:	500 copies @	\$0.04 each	20
Telephone/Fax:	10 hours @	\$7.20 /hour	72
Postage/Delivery:	4 Fed-Ex @	\$0.00 each	0
Total ODCs			92

Projected Expenditures by Month, All Tasks

